JC07 Rec'd PCT/PTO 16 APR 2001

FORM PTO-1390 (REV 11-2000)	U S DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER 265-97
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S APPLICATION NO (If known, see 37 C F.R 1 5) 09/807617 Unknown
INTERNATIONAL APPLICATION NO. PCT/EP99/08073	INTERNATIONAL FILING DATE 26 October 1999	PRIORITY DATE CLAIMED 26 October 1998

TITLE OF INVENTION

REHABILITATION DEVICE

APPLICANT(S) FOR DO/EO/US

WALTER

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The U.S. has been elected by the expiration of 19 months from the priority date (Article 31).
5. A copy of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☐ is attached hereto (required only if not communicated by the International Bureau).
   b. ☒ has been communicated by the International Bureau.
   c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
   a. ☐ is attached hereto.
   b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 34
   a. ☐ are attached hereto (required only if not communicated by the International Bureau).
   b. ☒ have been communicated by the International Bureau.
   c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
   d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 To 20 below concern document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 C.F.R. 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 C.F.R. 3.28 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
14. ☐ A SECOND or SUBSEQUENT preliminary amendment.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821-1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☐ Other items or information.

516315

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.5)	INTERNATIONAL APPLICATION NO	ATTORNEY'S DOCKET NUMBER
09/807617 Unknown	PCT/EP99/08073	265-97

21. ☒ The following fees are submitted:

	CALCULATIONS	PTO USE ONLY

BASIC NATIONAL FEE (37 C.F.R. 1.492(a)(1)-(5):

-- Neither international preliminary examination fee (37 C.F.R. 1.482) nor international search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO $1000.00

-- International preliminary examination fee (37 C.F.R. 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO $860.00

-- International preliminary examination fee (37 C.F.R. 1.482) not paid to USPTO but international search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO $710.00

-- International preliminary examination fee (37 C.F.R. 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) $690.00

-- International preliminary examination fee (37 C.F.R. 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) $100.00

ENTER APPROPRIATE BASIC FEE AMOUNT =						$	860.00	
Surcharge of $130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 C.F.R. 1.492(e)).						$	0.00	
CLAIMS	NUMBER FILED		NUMBER EXTRA	RATE				
Total Claims	24	-20 =	4	X	$18.00	$	72.00	
Independent Claims	0	-3 =	0	X	$80.00		0.00	
MULTIPLE DEPENDENT CLAIMS(S) (if applicable)					$270.00	$	0.00	
TOTAL OF ABOVE CALCULATIONS =						$	**932.00**	
☒ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.							466.00	
SUBTOTAL =						$	**466.00**	
Processing fee of $130.00, for furnishing the English Translation later than ☐ 20 ☒ 30 months from the earliest claimed priority date (37 C.F.R. 1.492(f)). +							65.00	
TOTAL NATIONAL FEE =						$	**531.00**	
Fee for recording the enclosed assignment (37 C.F.R. 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 C.F.R. 3.28, 3.31). **$40.00** per property +						$	0.00	
Fee for Petition to Revive Unintentionally Abandoned Application ($1240.00 – Small Entity = $620.00)						$	0.00	
TOTAL FEES ENCLOSED =						$	**531.00**	
						Amount to be: refunded	$	
						Charged	$	

a. ☒ A check in the amount of $531.00 to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. 14-1140 in the amount of $_____ to cover the above fees. A duplicate copy of this form is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 14-1140. A duplicate copy of this form is enclosed.

d. ☒ The entire content of the foreign application(s), referred to in this application is/are hereby incorporated by reference in this application.

NOTE: Where an appropriate time limit under 37 C.F.R. 1.494 or 1.495 has not been met, a petition to revive (37 C.F.R. 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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SIGNATURE 16 APR 2001

Arthur R. Crawford
NAME

25,327 **April 16, 2001**
REGISTRATION NUMBER Date

516315

REHABILITATION DEVICE

The device relates to a rehabilitation device for straightening a hump back and/or to stretch and straighten the front shoulder part.

Back and shoulder stretching devices have already become known, such as from DE 298 18 369 A1, that are used to be able to perform self treatment when there are back pains caused by strain.

But such training devices are not suitable for use if a so-called hump-back or drooping shoulders are to be treated.

Thus the object of the invention is to provide a rehabilitation device with which it is possible again to straighten a dorsal spine curved due to illness. The same also applies if drooping shoulders are to be treated.

The object is achieved according to the invention according to the features indicated in claim 1. Advantageous configurations of the invention are indicated in the subclaims.

The invention proposes a rehabilitation device that is designed relatively simply and with which the patient also can do exercises on his own to slowly, increasingly straighten his more or less greatly curved dorsal spine (hump back) and/or drooping shoulders.

The rehabilitation device is thus built like a rocker that can be swiveled around a support that can be put on the back, and the support or the swivel axis formed by it lies crosswise to the longitudinal direction of the body. Pulling elements can be provided or made in various ways at the top end of the rehabilitation device so that, in conjunction with a counter-support, they press on the upper front part of the drooping shoulder part. For example, the patient himself can raise the pressure on the shoulder part by lower actuation or pulling elements so that the drooping shoulder is straightened relative to the support placed on the back.

The rehabilitation device can be designed in many ways.

In a simple embodiment, the pulling elements that act on the shoulder part can consist of loops. But also possible are designs using rods, straps, etc., that are guided to the front over the shoulder from the back side of the base section of the rehabilitation device and on whose ends are placed the mentioned counter-supports acting on the shoulder.

The strap design here can consist of several adjustable individual straps to be able to optimally adjust the support in height and relative position according to individual needs.

As an actuation device, for example, actuation rods passing by the side of the body going forward can be connected with the rehabilitation device's base section, which includes the rear support. A slight pulling can then appropriately raise and lower the corresponding pressure on the forward-drooping shoulder part

to straighten the back. Likewise, cords, for example, can be put on these actuations sections, and they are fastened for example to corresponding hooks on a wall so that a slight rearward movement automatically places tension on the actuation elements and thus the desired pressure is raised on the left and right drooping shoulder area as well as on the hump back.

The rehabilitation device according to the invention is distinguished, inter alia, for example in preferred embodiments, by the following characteristics or features:

- The rehabilitation device can consist of a double arc, both of whose individual arc sections are stabilized with one another by cross struts. Padding can preferably be attached, in particular on the inner side of the curve in each case, at the intersections of the two.
- The double arcs consisting of two individual arcs can exhibit a narrow semicircle curve and a broad semicircle curve, and both arc sections can run at least approximately parallel and be open toward one side (namely toward the front).
- The arc sections can have one or more holes to which, for example, the mentioned cross struts and/or the padding can be attached in various positions to arcs or struts.
- To brace it on the shoulder area and/or on the back, the padding can be supported in each case by a lath.

The padding, in particular the part lying against the chest, can be fitted to the chest part. The padding that can be put crosswise over the back and act as a rocker support can, with the struts running lengthwise and designed as a semicircular curve, be attached facing inward (i.e., facing the back) on the side struts and thus span the overall crosswise distance between the side struts or double arcs. Preferably here also a support base is used that supports the rocker-like support.

- On the lower end of the lateral struts, in particular of the struts describing large curves, loops or rings can be made or attached, to which pulling devices can be attached.
- The individual parts mentioned, in particular the lateral struts also in the shape of arcs, and the one or more cross struts, can consist of metal, plastic, or wood. They can be solid or be equipped like pipes or the like. The mentioned padding preferably comprises an elastic core and can be covered with fabric, leather, plastic, or the like.

The invention will be described in more detail below based on embodiments. There are shown in:

Figure 1, a first embodiment according to the invention of a rehabilitation device in a diagrammatic perspective representation;

Figure 2, a corresponding representation with the rehabilitation device shown in figure 1 placed on a patient;

Figure 3, an embodiment modified relative to figure 1;

Figure 4, the rehabilitation device shown in figure 3 placed on a patient;

Figure 5, another modified embodiment; and

Figure 6, the rehabilitation device shown in figure 5 placed on a patient.

As can be seen from figure 1, the rehabilitation device according to the embodiments of figures 1 and 2 consists of a base section 1 that essentially comprises a support 3. In the embodiment shown, support 3 is placed crosswise to the longitudinal axis or lengthwise dimension 5 of the rehabilitation device. When placed on a patient, longitudinal axis or lengthwise dimension 5 runs parallel to the lengthwise dimension of the body, i.e., generally parallel to the vertical direction.

Support 3 can be provided with a continuous, crosswise support surface 3' that has a convex, light padding in the vertical cross section. But likewise it can also consist of at least two individual padded elements placed offset in the crosswise direction or, for example, of several individual padded elements 3 placed next to one another in the crosswise direction.

In the embodiment shown, the soft or elastic support is supported and braced by a base plate 4.

A support 3 designed this way is held and fastened by a suitable supporting structure, in the embodiment shown by a

connecting strut 7 located on the inner side or on the rearward back side of support 3 or base plate 4 and attached to actuation struts 9 lying opposite one another essentially in the longitudinal direction and running parallel to one another.

In the embodiment shown according to figure 1, both actuation struts 9, placed laterally offset to one another, are designed the same way and exhibit a stirrup-like, i.e., curved shape. Connecting strut 7 mentioned in support 3 can be fixed by a suitable detachable and attachable adjusting mechanism 11 in various positions along actuation struts 9, to be able to adapt to individual needs.

For this purpose, holes 10, for example, can be made in the longitudinal arcs or in actuation struts 9 and/or in mentioned cross strut 7, holes through which the screw-shaped fixed means can be inserted and fastened. In this way, the relative position of cross struts 7 can be variably adjusted in a different position in the longitudinal direction of actuation struts 9 and/or the spacing distance between both lateral actuation struts 9 can be variably adjusted by bringing corresponding holes 10 in the cross strut or holes 10' in the longitudinal struts into the desired relative position in corresponding alignment and by inserting the fixing device, preferably consisting of screw bolts, and securing them from the rear side by nuts.

It can be seen from figure 1 that actuation struts 9 are shaped in a narrower arc section 12 on top and in a broader arc section 14 on the bottom. In the embodiment shown, actuation

struts 9 go toward the front in an arc shape on their top end. There, counter-supports 13 are made or provided, and in the embodiment shown they can consist of a pressure or support base 15 opposite which corresponding padded elements 17 are located in padded support surface 3' of support 3.

Counter-supports 13 can also be adjusted by suitable adjusting and fixing devices 19 in a variable relative position relative to actuation struts 9 to make it possible to adapt to individuals.

To secure both actuation struts 9, in addition to mentioned connecting strut 7 one or more additional connecting struts can be provided at suitable points, for example, in the embodiment shown according to figure 1, in the front end area of arc-shaped actuation struts 9, and specifically here, for example, at the height of counter-supports 13. This makes it possible for counter-supports 13 to be attached, for example, not necessarily to actuation struts 9 directly but, e.g., to an ancillary strut 21 attached to them by mentioned adjustment and fixing device 19, so that counter-supports 13 can be attached by their adjustment and fixing device 19 at varying lateral distance from one another and fixed to connecting strut 21 and, for example, connecting strut 21 can be attached by another adjustment and fixing device in varying longitudinal position to actuation struts 9. The mentioned fixing device also consists here, like, e.g., the device that fastens cross strut 7 to lateral, arc-shaped longitudinal struts 9, of numerous holes 20 in both longitudinal

struts and holes 20' that are made in connecting strut 21 at a lateral interval from one another. In this way also, the lateral separation between both actuation struts 9 and the relative position of connecting strut 21 can be adjusted and fixed in varying longitudinal direction relative to lateral actuation struts 9 and, further, mentioned shoulder padding 13 can also be adjusted and fixed in varying relative position.

Figure 2 shows the rehabilitation device being worn. It can be seen from it that padded support 3 comes to lie on back 25 of a patient and there a swivel axis (articulation) running crosswise to the longitudinal direction of the body, i.e., generally in the standing position in the horizontal direction, forms the fulcrum and both upward-going, arc-shaped sections of actuation struts 9 run over the shoulders so that mentioned counter-supports 13 lie in each case on the left and right in the front shoulder area. By grasping release sections 27, which project on the bottom beyond support 3 downward and to the front, the rehabilitation device can be tipped around its horizontal swivel axis 29, formed by support 3, so that function unit 31 made above support 3 tilts associated counter-supports 13 according to arrows 33 toward the back. Likewise, for example, pull cords 35 can be attached to release sections 27 (for example to rings 28 that are made on the end of actuation struts 9) and be fastened at their other end for example to hooks 37 on a stationary wall 38 or the like, so that when the person in question moves backward slightly, the forward and/or upward

swiveling motion of release sections 27 thus produced exerts the corresponding tipping movement and thus the pressure of counter-supports 13 on the front shoulder area and the hump back in the desired way.

This procedure thus presses padded elements 17 against the front right and left shoulder part and stretches the front chest and straightens the lateral (i.e., left and right) front shoulder part and simultaneously the hump back.

A modification of the rehabilitation device is shown in figure 3.

It can be seen from the embodiment according to figure 3 that both laterally offset actuation struts 9 are not necessarily arc-shaped but, for example, can be constructed also only with one or more narrow arc sections or sharp curves. In this case, function unit 31 located above support 3 can exhibit not arc-shaped, but rather straight end sections of actuation struts 9. Actuation struts 9 can, in the rear area, thus be made vertical and straight. For further stabilization, two connecting struts 21 are provided above support 3, offset in the vertical direction and running crosswise, and they can also be fastened in their height position by suitable adjustment or fixing devices 23 in various relative positions (i.e., in the longitudinal direction of actuation struts 9 and/or with varying lateral displacement of both actuation struts). Attachment or fixing devices 23 can also consist of numerous correspondingly offset holes through which the corresponding screw and fixing means are inserted, as was

explained based on the attachment of cross strut 7 with reference to figure 1.

Used as counter-supports 13 in this embodiment are shoulder straps that can be made as loops, belts, etc. Such a loop-shaped counter-support 13, made for example of textiles or leather, therefore does not need to be provided with any further padding elements 17. But of course, especially in the inner area of the loop, further padding can naturally be provided. When worn, the arms thus go through these loops and, by corresponding height adjustment of both crosswise-running connecting struts 21 and end sections 39 of the loops attached to them, the position of the loops can be adjusted optimally by varying height adjustment and fixing of cross struts 21 not only in the lateral distance to one another (by adjusting their fixing elements on connecting struts 21) but also in the desired height position relative to support 3.

Corresponding action on release sections 27 by grasping or pivoting or by the mentioned use, for example, of release cords 35 in turn produces the desired rocking and swiveling movement while generating the desired pressure to straighten the shoulder part and the hump back 30, and support 3 lies against the hump back to be treated, forming swivel axis 29.

Yet other additional particularities can be drawn from figures 3 and 4, which will be discussed briefly below.

Reference symbol 52 in figures 3 and 4 reflects a semicircular rear side of support 3 that makes it possible for

this support to be used without the frame shown even during floor exercises, so that support 3 can be used as a tipping element for treatment while lying on the floor or even on a separate couch.

Reference symbol 53 further shows a bracing belt between counter-supports 13 and adjusting harness 45; 54 shows an elongated strut 9; 55 shows a cross strut for stabilizing elongated strut 54 and 62 shows an adjustable connection point that acts between the laterally offset struts running upward on the back and elongated struts 9 that can be attached to lengthen them, to be able to fix the latter in varying lengths.

Elongated struts 54, optionally with or without cross strut 55, can also be used, for example, to walk forward slowly toward a door until approximately in the door frame, until the elongated struts strike an upper door lintel. Going slightly forward or rocking also induces the corresponding forces on the front shoulder part and the hump back, to straighten them.

Only for the sake of clarity at this point will it be mentioned that the mentioned connecting points between the vertical and horizontal support struts can also exhibit, for example, adjustable connecting points at suitable places to be able to perform a faster alignment and precision adjustment according to individual needs with respect to the width adjustment or the height adjustment of the individual longitudinal struts and cross struts.

The embodiment according to figures 5 and 6 corresponds in its basic design to that according to figures 3 and 4. In this

embodiment, instead of the loop-shaped counter-supports still drawn in dashed lines in figure 5, the counter-support is made by additional, insertable or connectable supplementary harnesses. In this embodiment, straight actuation struts 9 are provided on their upper end with a corresponding plug junction 41 into which insertable end 42 of attachable strut 43, running in a large arc over the shoulders toward the front, is shown inserted, on whose front, downward running ends an adjustable harness 45, U-shaped in top view, is anchored at varying height. This adjustable harness 45 can further be anchored corresponding to arrow 47 in varying relative position so that counter-supports 13 located on its end can be adjusted in varying relative position closer or further in the direction of rearward support 3 by means of a pressure support base 15 and padded elements 17 usually attached there. This design makes it possible for a patient to more easily put on the device since, because of the distance between attachable struts 43 and adjustable struts 45, enough open space is left so that the rehabilitation device made this way can be put on over the head.

Also the horizontal distance between both attachable struts 43 can, for example, be changed by pivoting them around their insert axes 41. To make it possible here to adapt to adjustable strut 45, adjustable strut 45 is divided into two parts and comprises two halves 45′ and 45" of a U-shape that are provided on their base section 45a with a telescoping adapter section 45b that can be inserted into, and pulled out from, one another.

Otherwise, adjustable strut 45 and/or attachable strut 43 are provided, in the area of their crossing points 50, with numerous holes 51 lying offset to one another in the longitudinal direction, which make it possible to fasten adjustable harness 45 and attachable struts 43 onto one another in varying height position and also in varying relative position with respect to arrow 47 according to individual requirements and wishes, for example also by the mentioned adjustment and fixing devices, e.g., consisting of screw bolts and nuts.

Figure 6 here also shows that otherwise the further design and functioning is comparable to the preceding embodiments.

The fact that the vertical elongation using longitudinal struts 54 and connecting struts 55 can be provided only as an alternative, but does not have to be provided and can be inserted supplementarily in the other struts or again removed is shown, for example, based on figure 6, in which, departing from figure 5, vertical elongation struts 54 with connecting strut 55 are not shown.

Only for the sake of completeness is it mentioned that function unit 31 with the corresponding sections of actuation struts 9 or optionally provided attachable struts 43 or one or more adjustable struts 45 can also be designed so that these struts, starting from rear base section 1, can run not over the upper shoulder area but on the side, on the outside around the shoulder and arm area or even under the shoulder, and on each

front shoulder area a corresponding counter-support can be made and/or fixed in various adjustment positions.

Figures 2 and 4 show that, on the lower end of actuation struts 9, cords 35 can be attached, for example to a stationary wall or a stationary piece of furniture, to induce the corresponding forces on the shoulder area and hump back by forward and rearward movement. Naturally, corresponding cords can also be attached above rocker-shaped support 3 on the so-called function unit and its free ends can also be attached to a wall or a closet. In this case, the patient need go only forward to induce the rearward-directed forces on the shoulder area to straighten the hump back. In this case, detachable sections 27 are placed above support 3 that forms swivel axis 29.

Claims:

1. Rehabilitation device with the following features:

- with a rocker device,
- a base section (1) with a rocker support (3) is made on the rocker device,
- the rocker device can be tilted around a swivel axis (29) running crosswise to its longitudinal axis (5) and the swivel axis is formed by rocker support (3),
- above rocker support (3) is provided a function unit (31) that exhibits two counter supports (13) placed crosswise to longitudinal axis (5), offset to one another and facing rocker support (3),
- the rocker device can be put with its rocker support (3) on the back of a patient, and
- an operation element (27) is provided on the rocker device and it is used to tip both counter-supports (13) when placed on the front shoulder areas of a patient around swivel axis (29) formed by rocker support (3).

2. Rehabilitation device according to claim 1, wherein release sections (27) are located under support (3).

3. Rehabilitation device according to claim 1 or 2, wherein release sections (27) consist of two struts (9, 27) that run from base section (1) underneath support (3), preferably with a section going forward.

4. Rehabilitation device according to one of claims 1 to 3, wherein release sections (27), when the rehabilitation device is worn, are placed so that their end sections (27) going forward can each be grasped by a hand.

5. Rehabilitation device according to one of claims 1 to 4, wherein a release cord (28) can be anchored as a pulling device to both release sections (27).

6. Rehabilitation device according to one of claims 1 to 5, wherein both counter-supports (13), placed in each case laterally offset to one another, are provided above support (3), fastened directly or indirectly to base section (1).

7. Rehabilitation device according to one of claims 1 to 6, wherein both counter-supports (13) can be variably adjusted and fixed in their lateral distance and/or in their relative position with respect to base section (1) or to support (3).

8. Rehabilitation device according to one of claims 1 to 7, wherein counter-supports (13) sit on struts (21, 41, 45) that emanate from base section (1) and are arc-shaped in side view or made like an upside-down U.

9. Rehabilitation device according to claim 8, wherein counter-supports (13) sit on arc-shaped (12) or U-shaped (43, 45) struts that go upward, emanating from base section (1).

10. Rehabilitation device according to one of claims 1 to 8, wherein a connecting strut (21) is placed on struts (9, 12) emanating from base section (1) and going upward, and counter-supports (13) sit on it.

11. Rehabilitation device according to claim 10, wherein counter-supports (13) sitting on connecting strut (21) can be adjusted by a suitable adjusting and fixing mechanism (23) in varying lateral relative distance and/or connecting strut (21) can be adjusted by an adjusting and fixing mechanism (23) in varying longitudinal relative position with respect to the struts emanating from base section (1).

12. Rehabilitation device according to claim 10 or 11, wherein connecting strut (21) is made in top view as a U-shaped adjustable strut, while base section (45a) that connects both longitudinal legs can be adjusted in varying relative position.

13. Rehabilitation device according to claim 12, wherein counter-supports (13) are made or can be attached in the area of the exposed leg ends of adjustable strut (45).

14. Rehabilitation device according to one of claims 1 to 13, wherein attachable struts (43) can be inserted and anchored on base section (1).

15. Rehabilitation device according to one of claims 1 to 14, wherein base section (1) consists of two longitudinal struts (9) laterally offset to one another and between which crosswise support (3) is made, forming swivel axis (29).

16. Rehabilitation device according to one of claims 1 to 15, wherein several connecting struts (7, 21, 43) are made going between both longitudinal struts (5).

17. Rehabilitation device according to one of claims 1 to 16, wherein both longitudinal struts (9) are configured the same in side view.

18. Rehabilitation device according to one of claims 1 to 17, wherein both laterally offset longitudinal struts (9) transition on the bottom into the release struts.

19. Rehabilitation device according to one of claims 1 to 18, wherein counter-supports (13) can be fitted automatically to the respective shoulder part, i.e., can be swiveled at least over a certain angle range.

20. Rehabilitation device according to one of claims 1 to 19, wherein counter-supports (13) consist of a loop through which the arm passes when worn.

21. Rehabilitation device according to one of claims 1 to 20, wherein the at least two lateral struts (9) are configured essentially in an arc shape and preferably transition in the upper area into a narrower arc section (12).

22. Rehabilitation device according to one of claims 1 to 20, wherein lateral longitudinal struts (9) exhibit essentially straight strut sections and exhibit, preferably only at the transition from lower release section (27) to the rear strut area, an arc section or a bent connection area.

23. Rehabilitation device according to one of claims 1 to 22, wherein the function unit can be elongated with additional vertical struts (54) and, as needed, at least one additional

cross strut (55) and preferably these additional struts serve as release devices.

24. Rehabilitation device according to one of claims 1 to 23, wherein the connecting points between the individual struts and strut parts are configured as adjustable connecting struts.

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RULE 63 (37 C.F.R. 1.63)
INVENTORS DECLARATION FOR PATENT APPLICATION
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

As a below named inventor, I hereby declare that my residence, mailing address and citizenship are as stated below next to my name, and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

REHABILITATION DEVICE

the specification of which (check applicable box(s)):

☐ is attached hereto
☐ was filed on _____ as U.S. Application Serial No. _____ (Atty Dkt. No. 265-97)
☒ was filed as PCT International application No. PCT/EP99/08073 on 26 October 1999
and (if applicable to U.S. or PCT application) was amended on _____

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose to the Patent Office all information known to me to be material to patentability as defined in 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed or, if no priority is claimed, before the filing date of this application:

Priority Foreign Application(s):

Application Number	Country	Day/Month/Year Filed
298 19 060.5	GERMANY	26 October 1998

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below.

Application Number	Date/Month/Year Filed

I hereby claim the benefit under 35 U.S.C. 120/365 of all prior United States and PCT International applications listed above or below:

Prior U.S./PCT Application(s): Application Serial No.	Day/Month/Year Filed	Status: patented pending, abandoned
PCT/EP99/08073	26 October 1999	

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon. And on behalf of the owner(s) hereof, I hereby appoint **NIXON & VANDERHYE P.C., 1100 North Glebe Rd., 8th Floor, Arlington, VA 22201-4714, telephone number (703) 816-4000 (to whom all communications are to be directed)**, and the following attorneys thereof (of the same address) individually and collectively owner's/owners' attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent: Larry S. Nixon, 25640; Arthur R. Crawford, 25327; James T. Hosmer, 30184; Robert W. Faris, 31352; Richard G. Besha, 22770; Mark E. Nusbaum, 32348; Michael J. Keenan, 32106; Bryan H. Davidson, 30251; Stanley C. Spooner, 27393; Leonard C. Mitchard, 29009; Duane M. Byers, 33363; Jeffry H. Nelson, 30481; John R. Lastova, 33149; H. Warren Burnam, Jr. 29386; Mary J. Wilson, 32955; J. Scott Davidson, 33489; Alan M. Kagen, 36178; Robert A. Molan, 29834; B. J. Sadoff, 36663; James D. Berquist, 34776; Updeep S. Gill, 37334; Michael J. Shea, 34725; Donald L. Jackson, 41090; Michelle N. Lester, 32331; Frank P. Presta, 19828; Joseph S. Presta, 35329; Joseph A. Rhoa, 37515; Raymond Y. Mah, 41426; Chris Comuntzis, 31097. I also authorize Nixon & Vanderhye to delete any attorney names/numbers no longer with the firm and to act and rely solely on instructions directly communicated from the person, assignee, attorney, firm, or other organization sending instructions to Nixon & Vanderhye on behalf of the owner(s).

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